WHAT IS CLAIMED IS:

1. A method of altering the concentration of a desired gene product in a recipient subject which comprises providing to said recipient subject a transfected cell preparation, said preparation containing at least one transfected cell which contains a desired gene sequence, wherein said cell, when provided to said subject, will direct the expression of said desired gene sequence thereby causing the production of a desired gene product.

2. A method of altering the concentration of a desired gene product in a recipient subject which comprises providing to said recipient subject a transfected cell preparation, said preparation containing at least one transfected cell which contains an effector gene sequence, wherein said cell, when provided to said subject, will direct the expression of said effector gene sequence thereby causing the production of a desired gene product.

3. The method of any one of claims 1-2 wherein said desired or effector gene sequence is operably linked to a constitutive promoter region.

4. The method of any one of claims 1-2 wherein said desired or effector gene sequence is operably linked to a regulatable promoter region.

5. The method of any one of claims 1-2 wherein said transfected cell was originally obtained from an

animal of the same species as that of the subject recipient.

6. The method of claim 5 wherein said transfected cell was originally obtained from said recipient subject.

7. The method of any one of claims 1-2 wherein the expression of said desired or effector gene sequence provides to said recipient subject a gene product which had not previously been expressed by said subject.

8. The method of claim 7 wherein said expressed desired or effector gene sequence is equivalent to a native gene of said recipient subject.

9. The method of any one of claims 1-2 wherein the expression of said desired or effector gene sequence in said recipient subject causes an increase in the level of expression of a gene which is normally expressed by said subject.

10. The method of claim 9 wherein said expression of said desired gene sequence compensates for a deficiency of gene expression in said recipient subject.

11. The method of any one of claims 1-2 wherein the expression of said desired gene sequence in said recipient subject causes a decrease in the level of expression of a gene which is normally expressed by said subject.

12. The method of claim 11 wherein said expression of said desired gene sequence compensates for an excessive level of gene expression in said subject recipient.

13. The method of any one of claims 1-2 wherein said expression of said desired or effector gene sequence is physiologically significant.

14. The method of any one of claims 1-2 wherein said transfected cell preparation is provided to said recipient subject by means selected from the group consisting of: subcapsular implantation, subdermal implantation, intraperitoneal implantation, intracranial implantation, intrahepatic implantation, retroperitoneal implantation, intramuscular implantation, intrapulmonary implantation, intraocular implantation, intratesticular implantation, or intrasplanchnic implantation.

15. The method of claim 14 wherein said transfected cell preparation is provided to said recipient subject by subcapsular implantation.

16. The method of claim 14 wherein said transfected cell preparation is provided to said recipient subject by subdermal implantation.

17. The method of any one of claims 1-2 wherein said recipient subject suffers from a genetic disease and said providing of said transfected cell comprises a therapy for said genetic disease.

18. The method of any one of claims 1-2 wherein said recipient subject suffers from a non-genetic disease and said providing of said transfected cell comprises a therapy for said non-genetic disease.

19. A method for inducing the production of a biological compound which comprises providing to a recipient subject an effective amount of a transfected cell preparation, said preparation containing at least one transfected cell which contains a desired gene sequence, wherein said cell, when provided to said subject, will direct the expression of said desired gene sequence thereby causing the production of a desired gene product (I); the expression of said desired gene sequence being sufficient to induce a recipient subject to produce said biological compound.

20. The method of claim 19 wherein said biological molecule is capable of binding to said desired gene product.

21. The method of claim 20 wherein said desired gene product is an antigen, and said biological compound is an antibody.

22. The method of claim 20 wherein said desired gene product is a fragment of a complete gene product and said biological compound is a region-specific antibody with respect to said complete gene product.

23. A method for determining the concentration of a desired gene product (II) in a sample which comprises:

(a) incubating said sample in the presence of a biological compound capable of binding said desired gene product (II), the production of said biological compound being induced by the method of claim 19,

(b) determining the concentration of said desired gene product (II) by measuring the amount of said biological compound bound to said desired gene product (II).

24. The method of claim 23 wherein said gene product (I) and said gene product (II) are identical and wherein said biological compound is an antibody.

25. The method of claim 23 wherein said gene product (I) is a fragment of said gene product (II) and wherein said biological compound is a region-specific antibody with respect to said gene product (II).

26. A method for determining the concentration of a desired gene product (II) in a sample which comprises:

(a) incubating said sample in the presence of two different biological compounds capable of binding said desired gene product (II), the production of at least one of said biological compounds being induced by the method of claim 19,

(b) determining the concentration of said desired gene product (II) by measuring the amount of said biological compounds bound to said desired gene product.

27. The method of claim 26 wherein said gene product (I) and said gene product (II) are identical and wherein at least one of said biological compounds is an antibody.

28. The method of claim 27 wherein said gene product (I) is a fragment of said gene product (II) and wherein at least one of said biological compounds is a region-specific antibody with respect to said gene product (II).

29. An antibody produced by the method of claim 21.

30. A region-specific antibody produced by the method of claim 22.

31. A method for evaluating an agent suspected of having immunosuppressive activity which comprises:

(a) introducing a transfected cell preparation which expresses an antigen into a recipient subject,

(b) administering said agent to be evaluated to said recipient subject, and

(c) determining whether the administration of said agent affected the ability of the recipient subject to produce antibodies capable of binding to said antigen.

32. A method for producing a monoclonal antibody which comprises:

(a) inducing the production of antibody by the method of any one of claims 21-22,

(b) removing a cell from said recipient subject, said cell being capable of producing said antibody,

(c) forming a hybridoma between said cell (b) and an immortalized myeloma cell, wherein said hybridoma cell produces said antibody.

33. An implant which comprises a transfected cell.

34. The implant of claim 33 wherein said implant is a subcapsular implant.

35. The implant of claim 34 wherein said implant is an intraperitoneal implant.

add B1

add C1

add D1

add E1

add F2

add A1